## Rec'd PCT/PTO 19 JUN 2001 09/00004 #13

467

## SEQUENCE LISTING

,	(	Charor Setty,	ibary, Ph nis, Aris , Suman , Michael	otini-E tidis S	ffie							
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Lys Cys Pro Val Gly Arg Glu Arg Ala Met Pro Cys Val Lys Leu Asp 85 90 95

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Met Thr Phe Gly Ser Thr Leu Val Thr Asn Pro Asn Gly Gly Phe Leu 115 120 125

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Leu Asn Asp Leu Leu Lys Arg Met Asp Ile Gly Pro Lys Gln Thr Gln 195 200 205

Val Gly Ile Val Gln Tyr Gly Glu Asn Val Thr His Glu Phe Asn Leu 210 215 220

Asn Lys Tyr Ser Ser Thr Glu Glu Val Leu Val Ala Ala Asn Lys Ile 225 230 235 240

Gly Arg Gln Gly Gly Leu Gln Thr Met Thr Ala Leu Gly Ile Asp Thr 245  $\phantom{000}250$   $\phantom{000}255$ 

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Lys Lys Val Met Val Ile Val Thr Asp Gly Glu Ser His Asp Asn Tyr 275 280 285

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gtg Val	cag Gln	cag Gln	ttt Phe 55	ata Ile	aat Asn	cca Pro	aaa Lys	ggc Gly 60	aac Asn	tgg Trp	tta Leu	ctg Leu	gtt Val 65	ggt Gly	tca Ser	249
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cct Pro	gtt Val 85	gac Asp	cta Leu	tcc Ser	act Thr	gcc Ala 90	aca Thr	tgt Cys	gaa Glu	aaa Lys	cta Leu 95	aat Asn	ttg Leu	caa Gln	act Thr	345
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gac Asp	aac Asn	ttt Phe	cag Gln 375	Met	gaa Glu	atg Met	tca Ser	caa Gln 380	Val	gga Gly	ttc Phe	agt Ser	gca Ala 385	Asp	tac Tyr	1209
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cct Pro 420	aaa Lys	caa Gln	gcc Ala	ttt Phe	gac Asp 425	caa Gln	att Ile	ctg Leu	cag Gln	gac Asp 430	aga Arg	aat Asn	cac His	agt Ser	tca Ser 435	1353
tat Tyr	tta Leu	ggt Gly	tac Tyr	tct Ser 440	gtg Val	gct Ala	gca Ala	att Ile	tct Ser 445	act Thr	gga Gly	gaa Glu	agc Ser	act Thr 450	cac His	1401
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Gly Leu Pro Glu Ala Lys Ile Phe Ser Gly Pro Ser Ser Glu Gln Phe 35 40 45

Gly Tyr Ala Val Gln Gln Phe Ile Asn Pro Lys Gly Asn Trp Leu Leu 50 55 60

Val Gly Ser Pro Trp Ser Gly Phe Pro Glu Asn Arg Met Gly Asp Val 65 70 75 80

Tyr Lys Cys Pro Val Asp Leu Ser Thr Ala Thr Cys Glu Lys Leu Asn 85 90 95

Leu Gln Thr Ser Thr Ser Ile Pro Asn Val Thr Glu Met Lys Thr Asn 100 105 110

Met Ser Leu Gly Leu Ile Leu Thr Arg Asn Met Gly Thr Gly Gly Phe 115 120 125

Leu Thr Cys Gly Pro Leu Trp Ala Gln Gln Cys Gly Asn Gln Tyr Tyr 130 135 140

Thr Thr Gly Val Cys Ser Asp Ile Ser Pro Asp Phe Gln Leu Ser Ala 145 150 155 160

Ser Phe Ser Pro Ala Thr Gln Pro Cys Pro Ser Leu Ile Asp Val Val 165 170 175

Val Val Cys Asp Glu Ser Asn Ser Ile Tyr Pro Trp Asp Ala Val Lys 180 185 190

Asn Phe Leu Glu Lys Phe Val Gln Gly Leu Asp Ile Gly Pro Thr Lys 195 200 205

Thr Gln Val Gly Leu Ile Gln Tyr Ala Asn Asn Pro Arg Val Val Phe 210 215 220

Asn Leu Asn Thr Tyr Lys Thr Lys Glu Glu Met Ile Val Ala Thr Ser 225 230 235 240

Gln Thr Ser Gln Tyr Gly Gly Asp Leu Thr Asn Thr Phe Gly Ala Ile 245 250 255

Gln Tyr Ala Arg Lys Tyr Ala Tyr Ser Ala Ala Ser Gly Gly Arg Arg 260 265 270

Ser Ala Thr Lys Val Met Val Val Val Thr Asp Gly Glu Ser His Asp 275 280 285

Gly Ser Met Leu Lys Ala Val Ile Asp Gln Cys Asn His Asp Asn Ile 290 295 300

Leu Arg Phe Gly Ile Ala Val Leu Gly Tyr Leu Asn Arg Asn Ala Leu 305 310 315

Asp Thr Lys Asn Leu Ile Lys Glu Ile Lys Ala Ile Ala Ser Ile Pro 325 330 335

Thr Glu Arg Tyr Phe Phe Asn Val Ser Asp Glu Ala Ala Leu Leu Glu 340 345 350

Lys Ala Gly Thr Leu Gly Glu Gln Ile Phe Ser Ile Glu Gly Thr Val $355 \hspace{1.5cm} 360 \hspace{1.5cm} 365$ 

Gln Gly Gly Asp Asn Phe Gln Met Glu Met Ser Gln Val Gly Phe Ser 370 380

Ala Asp Tyr Ser Ser Gln Asn Asp Ile Leu Met Leu Gly Ala Val Gly 385 390 395 400

Ala Phe Gly Trp Ser Gly Thr Ile Val Gln Lys Thr Ser His Gly His 405 410 415

Leu Ile Phe Pro Lys Gln Ala Phe Asp Gln Ile Leu Gln Asp Arg Asn 420 425 430

His Ser Ser Tyr Leu Gly Tyr Ser Val Ala Ala Ile Ser Thr Gly Glu 435 440 445

Ser Thr His Phe Val Ala Gly Ala Pro Arg Ala Asn Tyr Thr Gly Gln  $450\,$ 

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Ala Pro Met Tyr Met Ser Asp Leu Lys Lys Glu Glu Gly Arg Val Tyr 515 520 525

Leu Phe Thr Ile Lys Lys Gly Ile Leu Gly Gln His Gln Phe Leu Glu 530 535 540

Gly Pro Glu Gly Ile Glu Asn Thr Arg Phe Gly Ser Ala Ile Ala Ala 545 550 555 560

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Pro Leu Glu Asn Gln Asn Ser Gly Ala Val Tyr Ile Tyr Asn Gly His 580 585 590

Gln Gly Thr Ile Arg Thr Lys Tyr Ser Gln Lys Ile Leu Gly Ser Asp 595 600 605

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- Phe Gly Gln Val Val Gln Leu Trp Ser Gln Ser Ile Ala Asp Val Ala 645 650 655
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- Lys Gln Asn Asn Gln Val Ala Ile Val Tyr Asn Ile Thr Leu Asp Ala 690 695 700
- Asp Gly Phe Ser Ser Arg Val Thr Ser Arg Gly Leu Phe Lys Glu Asn 705 710 715 720
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- Cys Pro Glu His Ile Ile Tyr Ile Gln Glu Pro Ser Asp Val Val Asn 740 745 750
- Ser Leu Asp Leu Arg Val Asp Ile Ser Leu Glu Asn Pro Gly Thr Ser 755 760 765
- Pro Ala Leu Glu Ala Tyr Ser Glu Thr Ala Lys Val Phe Ser Ile Pro 770 775 780
- Phe His Lys Asp Cys Gly Glu Asp Gly Leu Cys Ile Ser Asp Leu Val 785 790 795 800
- Leu Asp Val Arg Gln Ile Pro Ala Ala Gln Glu Gln Pro Phe Ile Val 805 810 810
- Ser Asn Gln Asn Lys Arg Leu Thr Phe Ser Val Thr Leu Lys Asn Lys 820 825 830

Leu Phe Phe Ala Ser Phe Ser Leu Pro Val Asp Gly Thr Glu Val Thr 850 855 860

Cys Gln Val Ala Ala Ser Gln Lys Ser Val Ala Cys Asp Val Gly Tyr 865 870 875 880

Pro Ala Leu Lys Arg Glu Gln Gln Val Thr Phe Thr Ile Asn Phe Asp 885 890 895

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Lys Ile Pro Leu Leu Tyr Asp Ala Glu Ile His Leu Thr Arg Ser Thr 930 935 940

Asn Ile Asn Phe Tyr Glu Ile Ser Ser Asp Gly Asn Val Pro Ser Ile 945 950 955 960

Val His Ser Phe Glu Asp Val Gly Pro Lys Phe Ile Phe Ser Leu Lys 965 970 975

Val Thr Thr Gly Ser Val Pro Val Ser Met Ala Thr Val Ile Ile His 980 985 990

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Asn Pro Leu Lys Ile Gly Gln Thr Ser Ser Ser Val Ser Phe Lys 1025 1030 1035

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Ser Cys Ser Asn Val Thr Cys Trp Leu Lys Asp Val His Met Lys 1055 1060 1065

Gly Glu Tyr Phe Val Asn Val Thr Thr Arg Ile Trp Asn Gly Thr 1070 1075 1080

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